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FRONT COVER

Canadian Trappers

Noah and Moses Kistabish, Hurricanaw River Indian trappers, snowshoe back to camp with a catch of beavers over their shoulders. (Photograph courtesy of the Canadian Embassy.)

BACK COVER

Furs (Undressed), Value of

United States Imports, 1946

The chart shows origin and value of United States fur imports in 1946, the year in which imports reached a high point. Since then, they have begun to drop, indicating that the fur trade is beginning to swing back to normal.

NEWS NOTES

First Point IV

Project in Iran

Village improvement work in Iran will constitute the first formal project to be carried out under the new Point IV Program in which the United States is extending its technical cooperation to other countries.

Technicians of the United States and Iran will work together in carrying out the objectives of the \$500,000 project. Improvement of agriculture, health, and education will be sought. Much of the work will be done at village level. The project will start by setting up a village demonstration center in a central part

of Iran, to be followed by similar village centers elsewhere in the country, with a total of 10 such centers scheduled by the end of 1951. The centers will emphasize the teaching of sanitation, better farming, and similar needs of the villagers.

Technical director of the work will be Dr. Franklin S. Harris, president-emeritus of Utah State Agricultural College, who has been in Iran since July as a "pre-Point IV" representative of the Office of Foreign Agricultural Relations. With him is Hoyt Turner, former vocational agriculture leader of Georgia, who will be field supervisor. Other United States specialists will be going to Iran to join them.

FAO Launches \$5,000,000

Point IV Program

A special session of the FAO Conference held in Washington in November ended in a note of optimism after approving progress on the near \$5,000,000 technical assistance program, which will about double the budget of the organization. The optimism was in contrast to the earlier worries as to how the organization would pay the costs of the move to Rome and meet an anticipated budget deficit which disappeared when a number of countries paid their contributions. The move to Rome will be financed in part from an \$800,000 loan from UN and the rest from accumulated savings and other funds available within FAO. The move will begin in February and be completed by April. A North American Regional Office will be established in Washington.

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ALICE FRAY NELSON, EDITOR

Land Ownership in The Middle East

by AFIF I. TANNOUS



There is increasing interest today in the world's land ownership patterns, stemming from the steadily growing realization that the farmer's unfulfilled desire to own the land he tills often is the basis of agrarian and national unrest.

Evidence of the United States concern is reflected in Secretary of State Acheson's statement before the United Nations Assembly in September in which he emphasized the importance of land use and ownership in meeting the "challenge of human misery, of hunger, poverty, and disease," and in which he lauded the beginnings or achievements in land reform already made by some countries.

The Middle East is typical of an area in which land ownership patterns present national problems and challenges. Here most of the people are farmers who barely make a living from tilling fields that they do not own. The system is an inefficient one that brings forth the least from both man and soil. Some progress is being made toward more equitable ownership of land, but the patterns are deeply rooted in tradition and change comes slowly. That change must come, however, is becoming more and more apparent to forward-looking leaders of the area. They know that a more efficient and productive agriculture is the foremost need of their nations, and some of them are beginning to recognize that only farmers who own or at least control their lands can be counted on to produce the most harvest.

Present Conditions

The chain of events leading up to today's land ownership patterns in the Middle East is complex, but the effect can be stated simply—the area's land tenure is largely one of absentee-ownership and semifeudal conditions. Most of the cultivators—the producers of the agricultural wealth of the region and the mainstay of its economy—exist as sharecroppers and tenants of one type or another, as laborers, or as owners of insufficient land. These are the landless millions at the foundation of the Middle East socio-economic and political structure, barely making enough to live on, denied the opportunity to own the land they oc-

cupy and cultivate, and unable to secure decent terms of tenancy.

At the same time, the heart of the absentee owner too often is not in the land. He is interested in the ready income from his property, but neither supplies the necessary management to his estate nor engages in actual farm work.

The problem cannot be dismissed simply as reflecting avarice of absentee landowners, for it is complicated further by legal, tribal, and even religious factors. There is, for example, considerable confusion as to who actually owns large tracts of land. Over great areas that are under cultivation, or are potentially cultivable, it is not clear whether the land belongs to the state, to this or that absentee landlord, or to the occupant cultivator. The traditional grazing rights of the tribal groups are often confused with the right of cultivation and ownership. Several categories of land, dating back to the early Arab and the Ottoman days, are still recognized and submit to differing legal procedures. One of these is the *Wagf* land, dedicated to religious or charitable purposes or held in trust for the benefit of a family line. This is land that cannot be sold, divided, or its character changed. Another is the vast state domain, called *Miri*, which is vaguely defined and vaguely located. Claims over it are many and conflicting. These two are distinguished from bona fide private property, called *Mulk*. There are also other minor categories, such as *Mawat* (waste), *Matruka* (set aside for special community use), and others.

This state of confusion has given rise to destructive disputes among claimants. It has also made it possible for powerful individuals to appropriate land at the expense of the peasant cultivators. Furthermore, as long as it persists, it makes impossible the rational development of the great land resource, especially in such countries as Syria and Iraq.

Then there is the problem of communal ownership, called *Masha'*. This ancient practice still prevails in the several parts of the region. It is a natural result of the transition from tribal nomadism into

Dr. Tannous is Regional Specialist for the Middle East, Regional Investigations Branch, OFAR.

settled agriculture. When no outside forces interfere (such as those of feudalism or absentee ownership), the collective grazing right of the tribe becomes the right to cultivate the soil collectively by the settled village community. In general, under this system no one individual owns a specific piece of land. He, or the family unit to which he belongs, owns one or more shares in the territory. For a few years he cultivates one area, then moves on to another, in accordance with a community system of rotation. The system worked well, so long as simple grain culture was involved. Under present conditions, however, it has proved a serious handicap to agricultural improvement, which depends on the initiative and enterprise of the individual. In its present form it is neither fully communal, cooperative agriculture nor fully private ownership. It stands between the two, preventing the individual and the community from making permanent and progressive improvements in the land resource.

Finally, there is the problem of fragmentation of holdings. Almost invariably, where land is owned privately as *Mulk* (in fee simple) by small cultivators, property exists in the form of small fragments scattered in various directions around the village, where farmers dwell. This situation has arisen as a result of a long process of dividing and subdividing the property for inheritance. It has been intensified by the acquirement of additional pieces through purchase and marriage. The serious problem involved here is the waste of time and effort by farmers, and their inability to manage their property and market their produce effectively.

Historical Background

An understanding of the system of land ownership in the Middle East takes one, inevitably, to the remote past, for land ownership patterns are the delta of a stream whose origins reach back to the dawn of human history. In the land system of today, we see clearly the influences of thousands of years of human experience in making a living from the soil.

In much of the area, man made an early successful adjustment to the peculiar desert and semidesert conditions by developing a nomadic grazing economy. This was a total way of life, involving a solid tribal organization and depending entirely on seasonal migration with the herds and the flocks, in search of pastures after the scanty rainfall. The land on which these pastures grew was the natural property of the tribe, equally shared by all, a supreme gift from the deity to the community. The basic form and func-

tions of what we now call democracy prevailed—economically, socially, and politically. The chief assumed his position and played his role mainly by virtue of his personal qualities as a leader. He held no exclusive ownership right to any part of the tribal territory. Blood—descent from the same ancestor—was the main bond that held the tribe together. That also carried a sense of equality.

Three outstanding features of this tribal economy should be emphasized as specially pertinent to our discussion. The first is that the right to graze on the land was held collectively by the tribal group. The second is that this way of life has been preserved in its main features through the centuries, in several parts of the region and, as we shall see later, has a direct, important bearing on the issue of land tenure. The third feature is that, in its pure form, tribal economy presents no significant problem of land tenure; it is only when the shift to settled agriculture is made, under the influence of peculiar outside forces, that the problem tends to arise.

In his effort to adjust to his environment and make a living from the land, Middle East man followed another course, that of settled agriculture. In certain areas of the region, rainfall was sufficient for growing crops, and in others flowing water could be readily utilized for the purpose. The techniques of dry farming and of irrigation were gradually developed. In either case, settlement by the family or the tribe on a fixed area of land was an essential condition. Roaming was curtailed, effort was applied to the soil persistently; the more the individual and his family worked, the more they produced, and in fertile areas surplus production became possible.

Here we see the beginnings of a relationship between man and land, which did not emerge in the case of the tribal economy. By cultivating a certain piece of land, independently or collectively, by depending on it directly for his living, the individual naturally became strongly attached to the soil. It was a symbol of life, it was coveted, and a sense of ownership developed.

From the early days of agriculture, in each country of the Middle East, we find this strong desire for ownership of land expressed in two forms—collective, by the settled tribe or the established village community, and private, by individual family units. In either case, the major objective of land ownership (that of a sense of security and the right to enjoy the products of one's labor) was attained to one degree or another. Either form of ownership was satisfying and involved no basic problems.



A desert tent-home in Saudi Arabia. Like their forefathers, most Saudi Arabians are nomadic.

But the cultivator of the soil in the Middle East was not left alone to enjoy ownership of the land and the products of his labor in peace. Since the early days of Babylon and Egypt, through the centuries of the empires of the Persians, Romans, Arabs, and Ottoman Turks, down to the present day, we see him traveling along an extremely rough road in quest of his goal. Occasionally, under an enlightened and benevolent regime, we see him accorded consideration and a certain measure of emancipation. On the long run, however, he has been precluded from owning his land and prevented from making it prosper. Cycle after cycle, in this long history of the region, we see clearly that with the abuse and decline of the peasant went an abuse and decline of the great land resource, and consequently the decline of nations, empires, and civilizations.

A main root in this situation goes back to the constant abuse of a remote concept of land ownership, which was originally fine and benevolent. That was the concept of divine ownership. The land belonged to the god of the community, the nation, or the state. Members of the community held that resource in trust and shared it equally. As conquerors became entrenched in power, as kingdoms and empires developed, we observe a definite shift from that basically democratic concept to the practice of absolute possession by the sovereign as representative of the deity. Generally, under the guise of serving the interest of the state and doing the will of deity, the sovereign begins to dispose of the land and the cultivators as he sees fit. Around the sovereign arise a group of elite who are granted the right to live on the produce of certain areas. Gradually they develop into feudal lords, holding full sway over the land and the cultivators. In the Middle East, this

is still in operation, in modified forms, today.

Another root of the system is traceable directly to the fact that the Arab and Ottoman Empires depended mainly on land taxation to maintain their governments and military operations. At times, taxation was so heavy that it tended to kill cultivators' hope and initiative. Furthermore, the rulers of these lands resorted at one time or another to the practice of farming out land taxes to certain influential people. These guaranteed the sovereign a certain sum and extorted from the peasants all they could. In most cases, these tax farmers succeeded in grabbing the land from the peasants, who then became sharecroppers.

In the third place, when the Ottomans, during the second half of the nineteenth century, attempted and failed to implement a comprehensive land reform (along the lines of their famous Land Code of 1858), abuse of the land and of the peasants was accentuated.

From that time on, we witness the rise of a powerful class of absentee landlords. Registration of the land in the name of actual cultivator-occupants was undertaken as the basic step in the intended reform. Through bribery, intimidation of the peasants, and other means, influential individuals in the cities and in the rural areas were able to defeat the spirit of the law and have most of the land registered in their names. At the same time, some of the powerful tribal chiefs were able to do the same. They got hold of the land supposedly in behalf of their tribes. Actually, they became absolute owners, and their tribesmen sank to the level of serfs.

This process of grabbing state domain by influential people is still going on in certain parts of the Middle East.



Leveling a field in Egypt. Peasant farming methods have changed little over the centuries.

Land Ownership Patterns

Egypt

About 6 million acres are cultivated annually in Egypt, each acre giving on the average a crop and a half under intensive irrigated agriculture. This is by far the major source of wealth in that country. More than 37 percent of the farmland consists of large estates that are held by about 0.5 percent of all owners. Looking at the situation from the other side, we observe that more than 70 percent of all owners possess 1 acre or less each. This is tantamount to being landless, as a holding of 3 to 5 acres is considered the minimum essential for the maintenance of a farm family in Egypt. The total area held by these people (i. e., 70 percent of all owners) amounts only to 12.5 percent of all cultivated land.

In addition to this large group of below-subsistence owners, there are the landless sharecroppers and the wage laborers. The three groups together constitute the great peasant class of Egypt, which accounts for about 70 percent of the total population.

These people are constantly struggling to make a bare living by renting land from the large owners or by hiring themselves out for daily wages. In either case they cannot hope to improve their lot within the prevailing system: As renters, they pay the owner in cash or in kind an amount that leaves the slightest, if any, margin of reward for their labor. Differing

according to fertility and location of the land, rents run from \$10 to \$150 per acre per year. The most common rates fall between \$30 and \$90. The agricultural wage laborer is in the same situation, as the daily pay averages about 20 cents for boys, 25 cents for women, and 40 cents for men.

Under such conditions, it is practically impossible for the Egyptian peasant to become an independent owner. Rarely does he succeed in saving enough to buy one-half of an acre or an acre of the precious land, though he desires that land strongly, and wishes to be its owner.

Iraq

Unlike Egypt, Iraq is a sparsely populated country, relative to its land resource. Yet we find there the same conditions of landlessness and low levels of living among the peasant folk. Furthermore, we find in that country a great agricultural potential, which is threatened by the prevailing system of land tenure.

This fertile land of the ancient Tigris and Euphrates Rivers has a total potentially cultivable area (mostly by means of expanded irrigation) of some 25 million acres, but less than 6 million acres is under cultivation. There is no doubt that capital and technical aid from the West will make it possible for Iraq to realize this tremendous potential. The serious question, however, is whether development will be attempted on the present foundations of feudalism,

absentee ownership, and sharecropping or on the foundations of a thriving rural community that is emancipated through its ownership of the land.

At the present time, less than 0.5 percent of the land is owned privately in fee simple. About 36 percent is state domain, which has been leased out more or less permanently. More than 58 percent is held directly and fully by the state and is leased out on a yearly basis. These figures indicate clearly that the fate of the land resource has not yet been fully decided as in Egypt. Most of it is still in the hands of the state, which could dispose of it either in favor of landless cultivators and tribesmen or in favor of large absentee owners and tribal chiefs.

The land that is now under cultivation (whether privately owned or leased from the state) is predominantly in the hands or under the control of the semifeudal tribal chief and the large owner from the city. In either case, absenteeism prevails. The peasants, consisting of village folk and semisettled tribal people, are in the majority of cases landless sharecroppers. They raise the crops and receive a share ranging from 20 to 50 percent of the produce, depending on whether they supply the seed, equipment, and livestock. In reality, the cultivator's share amounts to less than that, for he has to make certain contributions to local functionaries and to the agent of the landlord.

As a result the peasants of Iraq live at subsistence levels. This is clearly evident in their housing, health, and diet, and in the prevailing high rates of illiteracy and infant mortality.

There is also clear evidence that unless the system is checked effectively at its roots, it will continue to perpetuate itself. Witness what has happened during the past 50 years or so. Irrigation has been expanded materially, mainly through pump installations, and total agricultural output has been increased tremendously; but the peasants have remained landless and impoverished. In general, they do not possess the ability or initiative to prove their legal claim to the newly developed land. By one means or another, the influential tribal chiefs or city merchants succeed in doing so. In many cases, even when their right of ownership is recognized, cultivators are not able financially to maintain the costly pump installations. They are obliged to work on a share basis with one who is able to supply the necessary capital and equipment, be he the chief or the merchant. Gradually, these become the owners of the land, and the original occupant becomes a landless sharecropper.

Syria

Syria affords another illustration of the magnitude of the problem. We witness here practically the same conditions and the same process that prevail in Iraq. Actually and potentially, the country is predominantly agricultural in its economy and way of life. More than 70 percent of its people are agricultural folk, and the majority of them are sharecroppers or owners of insufficient land. Much of the agricultural land is legally state domain. Most of this land, however, and most of the privately owned land, is owned or controlled by large absentee owners. Peasants receive a relatively meager portion of the produce, and their level of living is not much different from their Egyptian or Iraqi counterparts. With the exception of a few localities, peasants' tenancy rights either do not exist or are not recognized in practice. Actually the peasant belongs to the landlord. He must stay where he is in such a status, for he has no chance to establish himself anywhere else. Landlords are commonly reckoned by the number of villages each owns. This means ownership of the land, the village, and the people in it.

The manner in which this system affects the future of agricultural development in Syria is clearly indicated by recent happenings in the Jezira area. This is the northeastern section of the country (amounting to about 20 percent of the total area), which is the most fertile and which holds the greatest agricultural potential. It has tremendous possibilities for irrigation and for dry farming. It is sparsely populated, and, until recently, it has been utilized mainly for grazing by nomadic and seminomadic tribes. During the past few years, cultivation has been expanded rapidly in the area. Modern machinery has been put on the land in large numbers, and bumper grain crops have been harvested.

This appears to be the beginning of sound development. On closer examination, however, we encounter a different picture. The tractor has been put on that fertile soil by speculators and absentee owners, who do not wish to settle permanently on the land and whose real concern is large and quick profit. Furthermore, they put the new land under cultivation through an understanding with the local tribal chief. He guarantees them "protection" of the crop in return for a portion of the produce. Nowhere do peasants figure in these arrangements other than as laborers or sharecroppers. Nowhere do we see signs of small, independent cultivator-owners emerging.

The situation in Lebanon presents enlightening contrast between two systems. In the mountain area, the heart of the country, a strong tradition of private ownership by small independent farmers prevails. In most cases, the family farm averages about 10 acres. The soil is scanty, and the terrain difficult; but the people have their hearts in what they own. They have blasted the rocks and built extensive terraces to prevent erosion; they have made the mountainsides produce abundantly of olives, grapes, figs, and apples. On the narrow coastal strips, they have grown luxuriant orchards of citrus and bananas. More significant than all of this, we observe that the village folk in this area enjoy much higher standards of living. This is clearly manifest in their diet, health, housing, and a literacy rate of some 90 percent.

True, they have other sources of income, especially from emigrants residing abroad. The independence they have gained through ownership of the land, however, has endowed them with the initiative and the possibility to seek these other sources and better their living conditions. Unlike sharecroppers, small independent owners are free to move up the ladder. Unlike landless men, they know the harder they work the more they will be rewarded; and hard they work.

This situation contrasts sharply with that prevailing in the rest of Lebanon—in the Akkar Plain of the north, in the Bika Valley of the interior, and in the mountain area of the south. Here we witness the predominance of the same feudal-absentee-sharecropping system that exists in Syria and Iraq. Here also we witness the same conditions of deprivation, lack of development, and low levels of living.

Saudi Arabia

The conditions found in Saudi Arabia are unique. Here is a rapidly developing country that still is predominantly pastoral in its economy and tribal in its way of life. So far, its central Government (an absolute monarchy not more than a few decades old) has been benevolent. The king, himself a product of desert and tribal life, retains much of its qualities in dealing with his people. On the purely tribal level, life is basically democratic. Within narrow limits of variation, social and economic equality prevails. The chief is a bona fide member of the tribe, and he assumes his leading role primarily because of superior personal qualities.

Where cultivation exists (this is restricted to relatively small areas along the west coast and, in some cases, in the interior), the land is owned mostly by



Typical village school in the more progressive parts of the Middle East.

small individual farmers. The vast majority of the land, in all parts of the country, is utilized by nomadic tribes for grazing herds of camels and flocks of sheep and goats. Now, who owns this land resource, the potential for agricultural development? The king, the state, the Muslim community, the tribes? No clear and definite answer has been made yet to this question; the situation is still largely in a state of transition.

Under the impact of Western technology, and through the cooperation of the Arabian American Oil Co. (which holds the concession to the huge oil resource of the country), Saudi Arabia is moving rapidly along the road toward modern life. It is changing from a way of life that is predominantly pastoral to one that depends primarily on agriculture and related industries. In recent years, several agricultural and other technical missions from abroad have visited the country and advised on developmental programs. A few irrigation projects are already functioning, and others are contemplated. A mission representing the Food and Agriculture Organization of the United Nations has negotiated with the Government an agreement with respect to the extension of technical aid in agriculture and water development.

These changes highlight the importance of clarifying the land tenure situation before any further water and agricultural development takes place. To wait until the land has become productive will intensify the problem at hand. The traditional grazing rights of the tribe will have to be reconciled with the cul-

tivation rights of new settlements or of expanding old settlements. The right of the settling tribesman in the ownership of the newly developed land will have to be clearly stated and assured. The form of ownership and cultivation, whether collective, private, or a combination of the two, will have to be agreed upon beforehand. A survey will have to be made in order to establish the grazing rights of various tribes and to differentiate clearly state or public domain from privately owned land.

In other words, we see Saudi Arabia at the crossroads of its future development, and we see that the land tenure issue is going to play a decisive role.

Land Reform Measures

Each country in the Middle East manifests some recognition of the land tenure problem, and most of them have made some beginnings at reform.

About 2 years ago, the Government of Saudi Arabia proclaimed its readiness to grant state land to any citizen who would undertake to put it under cultivation. This policy was developed on the basis of the Koranic statement, to the effect that land belongs to the one who revives it.

In Syria, Col. Hussni Az-Za'im staged a coup d'etat early in 1949 and took over the government. Within a few months, he initiated several fundamental reforms, including the distribution of state domain to landless peasants. In that same year, he was liquidated through a second coup d'etat, but not so the reforms he had initiated. The idea of reforming the land tenure system has been kept alive. The government that followed that of Az-Za'im created a committee representing various agencies to study the problem and recommend possible solutions. Effective action may or may not be taken by the present Government, but a beginning has been made and Syrian leadership is concerned about the problem.

A promising sign in Egypt is the keen consciousness of the problem that is now shared by Government officials and by the people in various walks of life, including the peasants themselves. This consciousness has developed as a result of a rapid increase in population, bringing about a tremendous pressure on the land. As mentioned above, this resource is highly concentrated in the hands of the very few, including the state. Landless or near-landless peasants desire a few acres of the greatly coveted land.

In response to this situation, Egyptian leadership is beginning to take some action. In some cases the Government has distributed reclaimed state domain among the peasants. During the past few years, the

Ministry of Social Affairs, under energetic and progressive leadership, has been increasingly and effectively sponsoring the cause of the peasant. Among other things, it has proposed draft laws aimed at land reform and at improved tenancy terms. In July 1950, Parliament passed one of these bills, requesting estate owners to provide tenants with certain housing and health facilities and with other services. During the past year or two, at least two definite draft laws for land reform have been proposed in Parliament by Deputies. Similar proposals have been made by other responsible leaders. All of them aim straight at the heart of the problem—stipulating for the distribution of state domain among peasants, the restriction of the size of holdings within minimum and maximum limits, the extension of credit to the new small owner, the protection of peasant property, and others.

A similar consciousness of the magnitude of the problem and its consequence has arisen in Iraq. Two small beginnings toward land reform were made a few years ago. Appropriate laws were passed, authorizing the Government to put two small areas under irrigation (one in the south and one in the north) and distribute the land among peasants and tribesmen. Since then, actual implementation of those projects has been taking place. In the summer of 1950, a law was passed authorizing the Government to expand the operation over additional areas of the state domain.

It might be argued that all of these measures amount to little, being mere beginnings, attempts, or gestures. This is true; but the important fact remains that the present governments of the region are doing something about the matter.

In Egypt and in Syria, in Lebanon and Iraq, there are leading individuals and organized groups who have been giving serious thought to land reform. Some have begun to do something about it: others stand ready to lend their support once a national project is launched. Some have worked out sound plans and proposed draft laws for reform; others have established improved tenancy terms on their estates: and many others have written pointedly on the subject, depicting the problem and urging a solution. These Middle East leaders—not only intellectuals and professional groups but also tribal chiefs and large landowners—are indicating an awareness that land reform must be accomplished if they are to achieve sound economic and national development. Currently, they also realize that land reform is a basic condition for successful participation in United Nations and United States programs of technical assistance.

World Fur Production and Trade

by E. T. RANSOM



Although the countries that traditionally produce the most fur still hold that position today, a new trade picture for the industry has developed as a result of wartime economic complexities.

Most of the world's fur continues to come from the Soviet Union, the United States, Canada, China, the United Kingdom, Germany, and Japan. But the famous fur auction cities, such as Brussels, Leipzig, London, and Paris, no longer have such important roles as they had before World War II. In recent years the fur dealers of the world have desired most of all to sell their pelts for dollars, and as a result New York City has taken on such importance as a market that it has become in many respects the Fur Capital of the World.

The deluge of furs upon the United States—with resultant upsets in the domestic fur market—has been caused, of course, by the fact that most of the world has been passing up furs for other more important purchases, and also by the fact that American dollars are a premium medium of exchange.



The silver fox was one of the first fur-bearing animals to be raised successfully on farms.

There are some indications now that the off-balance situation may be beginning to swing back to normal, with the general improvement in world economic conditions.

Trade

Because fur is a luxury item, highly international in character, the fur trade is particularly susceptible to world economic and political conditions. It was inevitable, then, that World War II and its aftermath would greatly disarrange the fur market and that the market would improve with the recent upswing in world economic conditions.

After the war, in 1947 and 1948, the important pre-war outlets in Europe were closed; those countries were spending their money rebuilding homes and factories. The other important outlet, the United States, was a limited market in that we usually import only those kinds and grades that we do not produce. Nevertheless, producing countries abroad, needing dollars for reconstruction and for replacing worn-out equipment, flooded the New York market with furs. United States fur farmers and trappers were alarmed, for they were finding it difficult to sell their furs, either at home or abroad. Their foreign markets were drastically curtailed by the dollar shortage and by import and export restrictions in several countries. At home, the style trend had doomed for the present the long-haired furs produced in abundance on United States fur farms, and consumers were waiting to buy when the excise tax had been lifted. In addition, mutation foxes, which closely resemble silver foxes, have been imported duty free in sufficient volume and at prices so low that people of wealth were unwilling to buy expensive silver fox apparel when it could be so easily duplicated.

In the past few months, markets and prices everywhere have improved, and production of some furs, particularly fox, has gone downward more in line with decreased demand. Important European markets have become available as prohibitive tariffs on some of the long-haired furs have been removed in France, Belgium, the Netherlands, Italy, and the United Kingdom.

Mr. Ransom is Agricultural Economist, Livestock and Wool Division, International Commodities Branch, OFAR.

TABLE 1.—Quantity and value of United States imports of raw or undressed furs (except silver or black fox), average 1936-40, 1941-45, annual 1946-49

| Kind | Average 1936-40 | | Average 1941-45 | | 1946 ¹ | | 1947 ¹ | | 1948 ¹ | | 1949 ¹ | |
|-------------------------------------|-----------------|---------------|-----------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|
| | Number | Value | Number | Value | Number | Value | Number | Value | Number | Value | Number | Value |
| | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars |
| Badger..... | 68 | 165 | 32 | 92 | 92 | 431 | 80 | 306 | 136 | 419 | 98 | 236 |
| Beaver..... | 70 | 1,050 | 129 | 4,023 | 98 | 4,716 | 149 | 4,289 | 104 | 3,613 | 137 | 2,800 |
| Coney and rabbit ² | 111,951 | 13,504 | 89,272 | 18,352 | 127,842 | 33,295 | 97,030 | 21,614 | 118,605 | 22,747 | 86,106 | 8,385 |
| Ermine..... | 671 | 711 | 836 | 1,207 | 812 | 2,801 | 491 | 1,068 | 612 | 1,454 | 457 | 955 |
| Fitch..... | 716 | 906 | 191 | 408 | 287 | 1,449 | 328 | 819 | 320 | 742 | 190 | 252 |
| Fox, other than silver or black | 974 | 4,604 | 1,235 | 7,053 | 1,114 | 7,476 | 770 | 3,751 | 411 | 3,075 | 192 | 653 |
| Guanaquito..... | 176 | 231 | 117 | 284 | 162 | 563 | 21 | 60 | | | 7 | 14 |
| Hare..... | 7,728 | 1,289 | 5,891 | 2,048 | 9,932 | 5,503 | 9,766 | 5,689 | 7,020 | 3,410 | 6,345 | 2,557 |
| Kolinsky..... | 729 | 1,354 | 276 | 1,168 | 806 | 5,693 | 605 | 1,919 | 762 | 3,124 | 803 | 2,070 |
| Persian lamb..... | | | 4,994 | 35,571 | 8,542 | 88,562 | 4,576 | 35,313 | 7,722 | 67,937 | 5,817 | 40,076 |
| Lamb, sheep, and shearlings..... | 8,014 | 24,459 | 9,312 | 7,642 | 9,375 | 15,778 | 2,744 | 4,070 | 3,922 | 7,228 | 2,830 | 5,244 |
| Goat and kid..... | | | 1,918 | 1,037 | 4,822 | 5,485 | 3,270 | 2,654 | 3,339 | 2,555 | 2,196 | 1,350 |
| Marmot..... | 9,696 | 1,306 | 1,536 | 2,320 | 2,410 | 6,740 | 1,861 | 3,064 | 2,434 | 5,265 | 1,677 | 2,732 |
| Marten..... | 125 | 1,976 | 69 | 1,908 | 248 | 10,226 | 200 | 4,914 | 177 | 4,955 | 187 | 4,037 |
| Mink..... | 886 | 3,427 | 499 | 5,775 | 724 | 8,011 | 1,028 | 13,902 | 994 | 11,016 | 1,665 | 15,741 |
| Mole..... | 920 | 73 | 111 | 17 | 417 | 74 | 73 | 9 | 108 | 9 | 60 | 8 |
| Muskrat..... | 780 | 826 | 1,690 | 3,079 | 3,164 | 7,881 | 2,613 | 3,823 | 3,162 | 6,723 | 3,799 | 5,148 |
| Nutria..... | 67 | 213 | 209 | 936 | 152 | 1,226 | 53 | 280 | 76 | 490 | 99 | 444 |
| Opossum..... | 487 | 275 | 573 | 528 | 442 | 688 | 529 | 361 | 400 | 345 | 274 | 273 |
| Otter..... | 43 | 235 | 28 | 270 | 41 | 788 | 28 | 405 | 18 | 223 | 38 | 384 |
| Pony..... | 133 | 606 | 118 | 501 | 63 | 316 | 76 | 322 | 45 | 165 | 50 | 154 |
| Raccoon..... | 63 | 208 | 48 | 181 | 70 | 233 | 59 | 130 | 40 | 136 | 21 | 48 |
| Sable..... | 2 | 187 | 16 | 1,151 | 28 | 2,979 | 24 | 1,502 | 24 | 1,590 | 29 | 1,597 |
| Seal..... | (2) | (3) | 23 | 42 | 24 | 144 | 10 | 65 | 3 | 7 | 1 | 11 |
| Skunk..... | 171 | 205 | 290 | 439 | 122 | 203 | 65 | 100 | 7 | 9 | 29 | 27 |
| Squirrel..... | 4,511 | 1,695 | 8,222 | 6,004 | 9,117 | 9,992 | 9,373 | 7,157 | 7,152 | 6,692 | 5,798 | 4,782 |
| Weasel..... | 1,943 | 1,867 | 722 | 879 | 3,492 | 6,480 | 1,173 | 1,609 | 1,670 | 2,961 | 1,289 | 1,868 |
| Wolf..... | 99 | 626 | 66 | 512 | 44 | 228 | 34 | 93 | 19 | 71 | 30 | 84 |
| Jackal..... | 20 | 18 | 13 | 10 | 3 | | 1 | | | | | |
| Leopard..... | 10 | 146 | 13 | 348 | 26 | 846 | 8 | 412 | 10 | 385 | 7 | 313 |
| Lynx..... | 16 | 492 | 16 | 538 | 10 | 351 | 12 | 273 | 7 | 121 | 2 | 14 |
| Ocelot..... | 31 | 81 | 73 | 447 | 73 | 718 | 64 | 441 | 50 | 321 | 49 | 280 |
| Wildcat..... | 160 | 262 | 232 | 750 | 146 | 805 | 152 | 561 | 82 | 268 | 73 | 174 |
| Other undressed furs..... | 435 | 758 | 1,141 | 691 | 529 | 1,151 | 489 | 610 | 590 | 774 | 182 | 311 |
| Total..... | 151,695 | 63,755 | 129,911 | 106,211 | 185,229 | 231,862 | 137,755 | 121,585 | 160,012 | 158,830 | 120,537 | 103,031 |

¹ Preliminary.
² Converted from pounds on the basis of 5 skins per pound.
³ Not separately classified prior to 1941.
Source: Compiled from official statistics of the U. S. Department of Commerce.

The situation in the United States during this 1950-51 season is considerably improved. Retail sales of furs showed marked improvement in July and August, possibly as a result of the Korean situation which doomed the anticipated repeal of the excise tax and warned of scarcity and higher prices. The effect of this increased buying has been felt all along the line.

The movement of furs from Iron Curtain countries into the United States has been affected by a widespread refusal of East Coast stevedores to unload them at ports of entry. The net effect of this boycott is not known at present, but its continuation is likely to have a great influence on the fur market in this country both as to prices and availability of certain pelts. The effect of the boycott will also be felt abroad, for the United States imports about as much fur as it produces.

United States imports cover a wide range of quality and kinds of pelts and supplement to a greater extent than they compete with domestic production. Sources of supply since 1920 have changed materially. In

the period 1920-29 the chief primary suppliers of fur were China and Canada while Germany and the United Kingdom supplied the bulk of the remaining needs by reexports. In the period 1930-35, there was a gradual shifting as the United States depended more on primary sources and less on reexports. Since 1939 the Soviet Union and Canada have been the chief suppliers.

To a lesser extent, the United States participates in the international fur trade through exports. The most important furs exported from this country are muskrat, opossum, skunk, and raccoon. Europe has always been the chief market for United States furs, with the United Kingdom being the most important buyer in most categories.

There has been little protection afforded the United States producer in the postwar period. Undressed furs, with the exception of silver or black fox furs, have been free of duty for the past 75 or 80 years and are now bound free, that is, through international agreement, assurances have been given that no tariff duties will be assessed.

Production

Notwithstanding the recent achievements of the fur farming industry, most furs still come from wild animals trapped in almost every State in the United States and in Canada, Alaska, China, and Siberia. In many cases, the trapping is done professionally; in others, it is part-time work.

Like gold prospecting, trapping is carried out by individuals. This is true even in Soviet Russia where the trapper, leading a solitary existence in the barren reaches of Siberia, has resisted the collectivizing influence and remains an individual entrepreneur who receives greater payment for his products than any other type of worker.

The Soviet Union and the United States are overwhelmingly the largest fur-producing countries of the world. From the standpoint of foreign trade, they are not in a competitive but in a complementary position: The United States is the world's largest fur importer, in prosperous years buying an amount exceeding its own production; the Soviet Union, on the other hand, is currently the largest exporter of furs.

Canada, China, the United Kingdom, Germany, Japan, in the order named, also produce a great deal of fur. Norway has an important fur-farming industry that specializes in silver foxes, and mink farming is of considerable importance in Finland. Rabbit and coney, which are used in trimmings and in the

manufacture of fur-felt hats, come chiefly from Argentina, Australia, France, and New Zealand. Afghanistan, Persia, and Southwest Africa, along with the Soviet Union, are important producers of Karakul and "Persian lamb" pelts.

No accurate statistics are available on total world production of furs, and because most of the fur crop comes from wild animals it would be difficult to make an estimate. The lack of information on world supply adds to the many problems of the fur farmer, for unlike wool or meat producers, for example, he has no basis for estimating total supply or what the demand for his product will be.

World production of farm-bred fur of fox and mink is concentrated in North America and Europe. The United States, Canada, Norway, Sweden, Germany, the Soviet Union, Finland, and England, in that order, are the most important growers. Fur farmers in all countries have been handicapped in much the same way by world conditions since the end of the war. However, countries such as the United States that have high fixed costs and high labor, material, and feed costs have been most affected.

The United States pioneered in fur farming and is today the most important producer of farm-raised pelts. Rabbits were the first fur-bearing animals raised on farms. About 35 years ago, silver foxes were imported from Prince Edward Island, Canada, and raised successfully on farms. Several years later,



Fur seals along the Alaskan coast.



Fur farming is big business on this 15,000-fox fur farm near Calgary, Canada.

mink were bred and raised in captivity. From these three kinds of fur bearers comes most domestic fur.

All the silver fox and about 70 percent of the mink fur in the United States is produced on fur farms. A few chinchilla, marten, fisher, muskrat, and Persian lamb have been raised on fur farms but not on a large commercial scale as yet.

The United States has about 10,000 fur farms in 43 States, representing an investment of \$150,000,000. The total value of the 1949 fur crop, including the wild catch, was an estimated \$150,000,000, compared with fur imports for the year of \$103,000,000.

The fur farming industry in other countries has developed along about the same lines that it has in the United States. Aside from rabbit farms, which are slanted toward meat production, mink and fox

are also the most important species raised in captivity.

The future for fur farming in this country, as well as in others, depends on world conditions. Fur is a luxury in most areas. It is one of the first items to be taxed by governments and one of the first that people stop buying in lean years. In the long-range picture, however, fur farming has a very definite place in the economy of the United States. As the frontiers disappear and as wild fur-bearing animals decrease, the need for furs produced on farms will increase. More effective methods of breeding and caring for animals are being developed, and research for more nutritious and cheaper food is going forward. Continuing and expanding fur farming will give this country a more diversified agriculture and will utilize resources that would otherwise be lost.

TABLE 2.—Quantity and value of United States exports of undressed furs, averages 1936-40, 1941-45, annual 1946-49

| Kind | Average 1936-40 | | Average 1941-45 | | 1946 ¹ | | 1947 ¹ | | 1948 ¹ | | 1949 ¹ | |
|---------------------------------------|-----------------|---------------|-----------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|
| | Number | Value | Number | Value | Number | Value | Number | Value | Number | Value | Number | Value |
| | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars | 1,000 | 1,000 dollars |
| Civet cat..... | 73 | 41 | 6 | 7 | 3 | 18 | 21 | 22 | 16 | 18 | 6 | 8 |
| Silver and black fox.... | 6 | 132 | 13 | 79 | 8 | 167 | 6 | 73 | 29 | 386 | 59 | 610 |
| Red fox..... | 51 | 245 | 17 | 73 | 177 | 688 | 30 | 116 | 110 | 308 | 186 | 239 |
| Fox, exc. silver, black, and red..... | 72 | 525 | 41 | 236 | 111 | 489 | 38 | 218 | 40 | 259 | 84 | 274 |
| Muskrat, northern..... | 5,200 | 4,167 | 493 | 521 | 1,956 | 4,159 | 2,860 | 5,275 | 2,172 | 5,206 | 1,842 | 3,314 |
| Muskrat, southern..... | | | 225 | 199 | 1,158 | 1,798 | 2,845 | 3,505 | 1,106 | 1,707 | 1,108 | 1,388 |
| Raccoon..... | 211 | 357 | 353 | 740 | 495 | 1,304 | 678 | 1,071 | 815 | 1,560 | 522 | 771 |
| Skunk..... | 1,217 | 1,637 | 84 | 163 | 599 | 1,573 | 1,071 | 954 | 944 | 1,456 | 517 | 497 |
| Opossum..... | 2,966 | 1,329 | 1,018 | 710 | 2,253 | 2,329 | 1,440 | 1,129 | 2,093 | 1,591 | 893 | 497 |
| Mink..... | 178 | 1,500 | 15 | 234 | 79 | 1,726 | 161 | 2,555 | 124 | 2,347 | 201 | 3,018 |
| Coney, rabbit, and hare..... | (2) | (2) | 301 | 154 | 2,256 | 997 | 1,094 | 438 | 1,064 | 541 | 366 | 130 |
| Squirrel..... | (2) | (2) | 68 | 47 | 300 | 280 | 179 | 119 | 152 | 132 | 168 | 95 |
| Lamb, kid, sheep, and goat..... | (2) | (2) | 86 | 222 | 551 | 873 | 367 | 873 | 392 | 1,558 | 230 | 456 |
| Ermine and weasel..... | (2) | (2) | 3 | 5 | 37 | 123 | 110 | 294 | 40 | 106 | ----- | ----- |
| Fitch and kolinsky..... | (2) | (2) | (3) | (3) | 3 | 18 | 26 | 22 | 14 | 14 | ----- | ----- |
| Other undressed furs..... | 1,532 | 1,976 | 493 | 521 | 651 | 1,440 | 998 | 2,627 | 324 | 1,242 | 909 | 1,883 |
| Total..... | 11,506 | 11,909 | 3,076 | 4,056 | 10,637 | 18,020 | 11,410 | 19,294 | 9,465 | 18,431 | 7,091 | 13,310 |

¹ Preliminary.

² If any, included with other undressed furs.

³ Less than 500.

Source: Compiled from official statistics of the U. S. Department of Commerce.

Tanganyika's New Packing House

By H. G. MINNIGERODE

Tanganyika has a new meat processing plant that promises to provide increased income to livestock producers and a domestic supply of meat products, feed, and fertilizer. The Territory's Governor, speaking at the dedication ceremony, stated that the construction of this plant should "set under way a process which in future years should radically alter the economic life of the Territory. . . . By providing the African with a steady market in meat products, he should gradually be led to a sounder economy and to a better way of life."

Output of the plant will go first to the East African market, and when full production is reached next year there will be a surplus for export.

This up-to-date packing house, said to be the largest in the country, covers a total area of 100,000 square feet. The plan for the erection of such a plant was first discussed by representatives of the Tanganyika Government and certain commercial interests in London about 3 years ago when it was decided to raise the

necessary capital and begin the building program as soon as possible.

Funds for the work, about \$1,960,000, were provided jointly by the Government of Tanganyika and Messrs. Liebig's Extract of Meat Co., Ltd. The Government of Tanganyika provided just over half of the capital and controls 51 percent of the stock; Messrs. Liebig provided the rest of the money and control the remaining 49 percent. The Board of Directors for the plant consists of three Government members and three representatives of Liebig, with a Government member as chairman. In this way the Government retains control of the policy of the company in order to insure that it will be run primarily for the benefit of the people of the Territory.

Workers at the packing house are recruited locally with a nucleus of trained men who have worked at similar plants elsewhere. It is estimated that there will be between 800 and 900 local people employed at the factory with 12 to 15 Europeans in charge of administration.

Homes have been erected on a large scale in the vicinity of the factory both for the Europeans and the native employees.

A large proportion of the cattle to be processed at the plant will be drawn from the famous cattle raising areas of the Lake and Western Provinces during the



Range land in Tanganyika, typical of the country's grazing areas.

initial stages of the project, but it is planned that later other districts will also be covered extensively by the company's buyers to insure that an even supply is maintained and that the benefits of the scheme are as widespread as possible.

Since from the company's point of view the quality and uniformity of the cattle supplied is of primary importance, the company insists that the cattle be delivered at an average of about 500 pounds and carry "plenty of flesh." The company will not, however, attempt to educate livestock producers in breeding and feeding practices. These services will be carried on by Government officials.

Purchasing for the plant is done by experienced company buyers who attend auctions and purchase suitable cattle on the open market in competition with other buyers, thus paying the full local commercial price. The cattle are driven from the market to the nearest railway station where they are loaded into special cattle cars, 34 in each to prevent undue crowding, and are then taken by rail to Pugu Station, a few miles from Dar es Salaam. From there the cattle are driven to the 20,000-acre holding grounds near the packing house where they are fed and rested until the plant is prepared to handle them. About a 10-day supply of cattle will be kept in the holding grounds, which will be stocked at the rate of about 10 acres per cow since the quality of the grazing is not high.

At the present time, only about 50 cattle are slaughtered daily, but when the project is in full operation next year it is estimated that the plant will be able to absorb about 500 cattle daily, a large proportion of the surplus cattle production of the Territory.

The packing house will operate for 25 days each month, with an interval of 2 or 3 months each year when there will be no killing so the natives employed at the plant will be free to tend their farms.

An important feature of the packing house is that nothing will be wasted. Every part of the animals slaughtered will be used for one purpose or another, and the most modern and elaborate machinery has been imported from England for this purpose. All of the best meat will be hygienically packed in tins as corned beef and beef stew; such other products as soup, jellied oxtail, and liver extract will be processed and packed. The hides will be treated and

stacked in salt to keep them in good condition for export. The bones will be turned into fertilizer and even the hair will be treated and sold. The delicate hairs from inside the ears of the cattle are to be specially treated as they appear to be in demand for making artist's paint brushes.

Since it is anticipated that most of the profits from this trade will eventually return to Tanganyika and be used for the benefit of the Territory, the opening of this plant is regarded as an important milestone in the economic development of Tanganyika.

The company will spend an estimated £200,000 to £300,000 (\$560,000 to \$840,000) annually on the purchase of cattle alone. This money will provide livestock producers with additional income, which can be used to improve their standard of living, their land, and the quality of their stock.



Cotton—Production, Marketing and Utilization, edited by W. B. Andrews. 576 pp., illus. Wm. Byrd Press, Richmond, Va., 1950.

The sciences, like Victor Hugo's blind children and the elephant, touch cotton at so many different points that no student of the commodity, however firm his grasp of his own specialty, can hope to write authoritatively on much more than a single phase of the subject. Students in all departments will, therefore, welcome this encyclopedic volume in which fifteen well-known authors guide the reader through the special fields of their own professional competence.

Starting with the historical review of the geography of American cotton production since 1800, the subjects of separate contributions include, on the side of production: Cotton Varieties and Breeding; Response to Fertilizers; Cotton Diseases; Cultural Practices; Insect Control; Harvesting; and Ginning.

Two chapters are given to Markets and Marketing Practices including Classing, two to Manufacturing and Utilization, and one each to Warehousing, Cotton Fiber Technology, World Aspects of Cotton Production and Trade, and Cottonseed.

A valuable feature of the book is its illustrations, which are markedly copious, clear, and well-chosen. To Professor W. B. Andrews, State College, Mississippi, belongs credit for inspiring the work, editing it, and carrying it through to publication.

Mr. Minnigerode is Consul, American Consulate, Dar es Salaam, Tanganyika.

Extension Work in The Punjab

by KARL KNAUS



Anyone visiting the Punjab in Pakistan will be impressed by the excellence of the farming there. Though done largely with primitive tools and bullock power and by illiterate people, the fields and boundary lines are clean of weeds, the cotton and sugarcane rows are straight, and there is an even stand of rice, wheat, cotton, gram (chick-pea), or whatever crop is being grown. Aside from a naturally fertile soil and a thrifty hard-working people, there are some other reasons for these evidences of good farming. First among them is the Punjab Agricultural College and Research Institute at Lyallpur. This little 45-year-old school of 310 students and 15 undermanned and underfinanced departments, or sections as they are called, exerts an influence on Punjab agriculture far in excess of what might be expected from so young an institution or so small a staff.

Effective research on problems of particular importance to farmers of the Province, coupled with an aggressive, well-organized extension program, has produced remarkable results in the subject matter fields in which the Institute has worked. Here are a few as

reported by Dr. Khan Abdul Rahman, Director of Agriculture: (1) The yield of wheat has been raised from 820 to 1,312 pounds per acre; (2) the yield of cotton lint from 109 to 218 pounds per acre, its staple length from 0.7 inch to 1.1 inches, and its fiber count from 20 to 70; (3) the raw sugar yield from 1,640 to 5,330 pounds per acre; and (4) through the use of berseem and imported legumes, the fodder yield has been raised from 7 to 21 tons per acre.

The methods by which these results have been obtained are interesting. For example, posters are used extensively. Students are trained to carry on lectures and demonstrations in their home villages during summer vacations. Exhibits are used at fairs, livestock shows, and other places where many people will see them. Short courses are given at the college for special interest groups like fruit growers and dairymen. Care is always taken to explain "why," also to recommend only seed, other materials, or cultural practices that are easily available to the people. In other words they make it as easy as possible for farmers to follow the recommendations. While the crop improvement work has been mostly with improved varieties, yet cultural practices, optimum water needs, and insect and plant disease control have received attention and have made their contributions.

In carrying on their extension work, Dr. Rahman says that they have three outstanding difficulties: (1) Very few people can read; literacy is about 10 percent and probably less in rural areas; (2) the people are poor, do not have radios, and cannot travel far from their villages; and (3) holdings are small—the usual farm is 3 to 6 acres.

On the other hand, most of the farmers live in villages of 50 to 150 families, which enables extension workers to reach large numbers. They have few amusements and readily attend meetings and demonstrations that are accompanied by entertainment features. And they are thrifty; therefore, they will change practices when it is proved that they will benefit from them.



Donkeys tread out the grain on this traditional threshing floor in the Punjab.

Mr. Knaus is adviser on extension to the Government of Pakistan under the United States program of technical cooperation.

The Punjab is divided into 5 circles for extension work, each with a Deputy Director of Agriculture. In each circle, there are 1 to 4 EADAs (extra assistant directors of agriculture), 16 for the Province. The 16 EADAs supervise the work of 126 agricultural assistants who correspond to the county agricultural agents in the United States. They are all college graduates trained at Lyallpur. Each agricultural assistant has in his territory at least 3 mukaddams, who are practical men with at least 1 year of college training, and 4 to 6 beldars, or local plowmen, who carry out field demonstrations under the direction of the mukaddams and the agricultural assistants. This type of organization assures a high percentage of successful demonstrations, although it may not encourage initiative and participation of local farmers to the fullest extent.

Another important feature of the crop improvement work are the seed farms. Approved seed is produced on these farms in quantities sufficient to supply a large percentage of the cultivators. This seed is made available through distributors who are located so that no cultivator is more than about 5 miles from a seed supply. In the case of cotton, approved seed has been adapted to specific localities. After the Research Institute announces that a certain variety of cotton is best suited to an area, the Cotton Control Act requires that approved seed of this variety be used in that locality.

Dr. Malik Amanat Khan, Principal at Lyallpur and Head of the Agriculture and the Economic Sections, thinks that the work with farm management and livestock should be greatly strengthened. The Department of Agriculture is highly interested in getting research in human nutrition and some other phases of home-making started so that as the income of the cultivators is improved through higher yields and better market varieties, it may be reflected in better food, more comfortable homes, less drudgery in the home, improved water supply, better sanitary measures, and other things that contribute to better health and improved living conditions. While there are many classes in canning and other methods of preserving fruits and vegetables, by and large, there is little research or extension work being carried on in problems of the village home and of the homemaker. A supply of good water and sanitary disposal of waste and sewage are two important problems. The control of such insects as flies, mosquitoes, and household insects, which spread disease and thus affect the health of the village people, are also important. These are new areas of research and extension to which agricultural authorities wish to give attention as soon as possible.

The Punjab is thus an area of contrasts: excellent work in some subject matter fields, and very little in others. This has caused Dr. Rahman to remark that in the Punjab an extension worker must be able "to run with the fastest horse or to crawl with the snail."

Italian Agriculture and ERP

—Part II*



When ECA began functioning in April 1948, large relief programs, mostly United States financed, had already started to bridge the gap between Italy's food needs and its supplies and had assisted in creating a healthy economic setting for increased production and foreign trade. However, there remained urgent need for considerable imports of basic foodstuffs and agricultural supplies as well as certain raw materials for industry, one of the most important

of which was cotton. During the first 2 years of the ERP program in Italy, the problems of basic supplies, particularly from the dollar area, have become of lesser importance as domestic production increased and trade agreements were concluded. The efforts to assist Italian agriculture have thus turned increasingly toward augmenting output through investments from lira counterpart funds and technical assistance.

ECA Dollar Assistance

From an agricultural viewpoint the most direct dollar assistance has been through the importation of cereals, especially wheat. During the first 2 years of

*Part I of this article appeared in the November issue of *Foreign Agriculture*.

TABLE 1.—*Imports of agricultural products and farm supplies*¹

| Commodity | Dollar value authorized | Arrivals reported by Italian Government | |
|--|-------------------------|---|----------------|
| | | Quantity | Value |
| | | <i>Long tons</i> | <i>Dollars</i> |
| Cereals | 180,410,322.83 | 1,809,734.1 | 172,840,190.37 |
| Other grain preparations | 862,415.40 | 5,970.5 | 972,915.00 |
| Fats and oils | 16,703,237.02 | 72,375.7 | 14,184,224.87 |
| Other foods and fodders | 200,000.00 | | |
| Meats | 48,248.50 | 143.7 | 49,741.70 |
| Fish | 2,961,620.44 | 9,178.7 | 2,909,410.90 |
| Seeds other than seed oils | 1,101,589.67 | 1,967.6 | 501,549.51 |
| Coffee | 1,933,675.80 | 4,408.5 | 1,856,225.13 |
| Miscellaneous edible vegetable and animal products | 85,478.01 | 28.6 | 84,494.64 |
| Tobacco | 3,484,583.30 | 1,030.9 | 1,774,033.52 |
| Raw cotton | 203,099,219.44 | 217,559.5 | 146,116,331.33 |
| Cotton linters | 110,547.49 | 396.8 | 110,547.49 |
| Vegetable fibers | 59,783.87 | 330.4 | 145,980.87 |
| Miscellaneous inedible animal and vegetable products | 9,622.65 | 6.0 | 9,975.00 |
| Naval stores | 1,521,222.13 | 8,198.1 | 1,386,805.33 |
| Nitrogenous fertilizers | 625,000.00 | | |
| Phosphate rock | 700,000.00 | 55,772.9 | 506,694.72 |
| Agriculture pesticides | 631,859.80 | 93.4 | 118,005.26 |
| Agricultural equipment excluding tractors | 2,073,639.62 | 189.8 | 145,417.49 |
| Agricultural equipment including tractors | 7,909,199.46 | 583.3 | 451,856.54 |
| Hides and skins | 5,178,393.39 | 6,915.9 | 4,757,640.53 |
| Lumber | 1,091,294.06 | 27,863.8 | 1,034,677.32 |

¹ To Apr. 30, 1950.² Equals 209,200 cubic meters.

Source: Office of Controller, ECA Mission.

ERP up to April 30, 1950, 1.8 million tons of ECA-financed cereals, representing a value of \$173,000,000, arrived in Italy. There were also large imports of other foodstuffs, Italian production of which is or was insufficient to cover requirements (table 1). In addition there were heavy importations of raw cotton and other fibers that are not produced in Italy. Agricultural supplies imported included fertilizers and pesticides. A few special types of agricultural equipment were brought in, too, but importation of most types of agricultural machinery that can be produced in Italy was not included in the ECA import program, because ECA considered development of that industry in Italy important from an over-all economic viewpoint, notwithstanding the immediate disadvantage to Italian agriculture of such a decision.

ERP Counterpart Funds

While the direct dollar aid is important to Italian agriculture, the principal ECA benefits to this segment of the economy come from the lira counterpart funds, that is, from the lire that the Government obtained from the internal sale of products given to Italy as dollar aid.

For the first year of ERP (1948-49), 70 billion lire¹ were set aside for agricultural purposes by agreement

¹ After devaluation the Italian lira equaled \$0.16.

between the Italian Government and ECA. Before this money could be used, however, parliamentary approval was required by Italian law. That approval was not forthcoming until April 23, 1949, when Law 165 became effective. This law specified that the money be used for the following purposes:

| Program | Allocation (in millions of lire) |
|--|-------------------------------------|
| Reclamation and irrigation | 42,620 |
| Grants for land improvement | 12,500 |
| Agrarian credit | 1,500 |
| Contribution under Law 31 (July 1946) | 4,500 |
| Transformation of public land | 1,700 |
| Pest and parasite control | 1,300 |
| Research and experimentation | 780 |
| Education of farmers | 700 |
| Contribution to assist farmers to purchase machinery and draft animals | 900 |
| For information of small properties | 2,000 |
| Inspection service | 800 |
| To improve vine culture | 300 |
| To improve livestock | 400 |
| Total | 70,000 |

Of the total allocation, the ECA Mission has approved projects for about 55 billion lire. Of this amount 21 billion have been approved for release by the Mission for expenditure by the Italian Government, but only 7.1 billion actually have been spent. Under Italian law, funds authorized by Parliament do not have to be spent during the period for which they are allocated: hence the remaining 50 billion may be carried over for the purposes for which they were earmarked by Parliament. Indeed, by the end of fiscal 1948-49 none of the 70 billion actually had been spent. However, the lag in utilization of the funds does not mean that the work program was stationary. Both the Ministry of Agriculture and the Mission endeavored to develop and approve projects as rapidly as possible, but there were many barriers to speedy execution. Most important of these barriers were the detailed procedures in both the Italian and United States agencies.

Because of the slowness of expenditures during the first year, together with urgent need for funds in other sectors of the economy, no allocations were made to agriculture from 1949-50 accruals to the lira fund.

Along with the ECA program for agriculture, the Italian Government is working out long-term plans for developing the south and the depressed areas of the center and north. This program is to continue for a period of 10 years beginning in 1950. Under the plan, ERP-financed programs are to be integrated with this 10-year program and ERP funds are desired for use during the first 2 years (1950-52), that is, for the last 2 years of ERP. Before concurring even in prin-

ciple to using ERP counterpart funds in this extraordinary program, the Mission obtained agreement of the Italian Government to continue the ERP projects started throughout Italy (i. e., in nondepressed areas in north and central Italy as well as in depressed areas) and to carry out an over-all agricultural program along the lines suggested by the Mission.

Reclamation and Irrigation

This program, under existing Italian law, involves the development of land that may be partly or totally unproductive, but that can be rehabilitated or improved by drainage, irrigation and or other works. In these areas, there will be new roads, aqueducts, transmission lines, farm centers, and other public works required to enable people to move onto the land. As a second stage or, if possible, contemporaneously with the first stage, the Government tries to provide such features as dams for irrigation and power, main canals and irrigation networks, as well as main drainage canals with pumping stations. ECA selects only those projects that guarantee maximum production in a minimum amount of time with a minimum amount of money.

About 240 projects have so far been recommended for financing under the first year program of ECA. The status of allocations made during the investigation stages is shown in the following tabulation:

[Billions of lire]

| | Acceleration and anti-malaria | Concentration | | War damage | Mountain basins | Unallocated balance | Total |
|---------------|-------------------------------|---------------|-------|------------|-----------------|---------------------|--------|
| | | A | B | | | | |
| North Central | 0. 96 | 3. 58 | 2. 55 | 1. 29 | | 2. 86 | 11. 24 |
| South..... | 13. 73 | 5. 34 | 4. 10 | 1. 51 | 0. 63 | 6. 07 | 31. 38 |
| Total..... | 14. 69 | 8. 90 | 6. 65 | 2. 80 | . 63 | 8. 93 | 42. 62 |

As of June 30, 1950.

It will be noted that the tabulation is broken down into specific categories of projects. Definition of the terms "Acceleration" and "Concentration A and B" are in order before proceeding to a more detailed description of this program.

"Acceleration" is the term assigned by the Italian Government to designate projects on which work was to be given first priority. The "Concentration" projects are those that were given second priority on the extraordinary public funds. The "A" projects require 4 years of work for completion; the "B" projects had been partly completed before ECA, and, for a period of 1 year, 90 percent of the remaining public work was to be financed by ECA.



Italy is trying to improve its corn crop by adapting United States hybrid corn to local conditions.

ACCELERATION PROJECTS. This group of projects represents 30 districts, most of which are in southern Italy, Sicily, and Sardinia, containing 1,135,000 hectares (2,800,000 acres). The law under which these districts are to be developed contains particularly stringent measures for the compulsory development of properties by landowners; failure to follow the plans submitted by the district may result in expropriation of the property by the district. Public works are "accelerated" so as to leave the owner no excuse for not undertaking private improvements. This is a law designed particularly for regions with large areas of undeveloped lands such as is found in each of the 30 districts.

Construction is under way on all acceleration projects but is being retarded by slow review of plans and specifications as required under existing governmental regulations. The amounts of contract awards average about 11 percent below engineer estimates: 14,464,-280,500 lire have been approved for these projects. When work has been completed, it is anticipated that the following benefits will result:

| | | |
|------------------------------|------------|---------|
| New roads..... | miles..... | 345 |
| Drinking water aqueduct..... | do..... | 144 |
| New irrigation..... | acres..... | 30, 000 |
| Drainage..... | do..... | 62, 000 |
| Flood control..... | do..... | 40, 000 |

CONCENTRATION A. This group involves 32 projects in all parts of Italy comprising 2 million acres. Like the Acceleration projects, these are considered to be a 4-year program with ECA assistance ending on June 30, 1952. These projects are heavily concentrated in the Po River Valley and Sicily. Most projects in southern Italy are under construction but are not as far advanced as those in the north. The following benefits are anticipated from funds presently available, 8 billion lire:

| | | |
|-------------------------------|------------|--------|
| New roads..... | miles..... | 44 |
| Drinking water aqueducts..... | do..... | 19 |
| New irrigation..... | acres..... | 90,000 |
| New drainage..... | do..... | 40,000 |
| Flood control..... | do..... | 35,000 |

CONCENTRATION B. These projects are distributed throughout the country and were considered to be of great importance as the program called for completion within a few months. It was understood that ECA would provide funds that would bring these projects to approximately 90 percent of completion, and the Italian Government would furnish the required 10 percent at a later date. It now appears that the Government may have difficulties in locating sufficient funds to include this group of projects in its regular budget for the coming year, and it may be desirable for ECA to help provide the necessary funds from possible savings in the Acceleration and Concentration A groups.

In the B group, there are 132 projects, totaling 3.5 million acres. All projects have been examined and work has started in about half of the districts. The first year's program provided for 6,520 million lire from which it is hoped these benefits will be derived:

| | | |
|-------------------------------|------------|---------|
| New roads..... | miles..... | 63 |
| Drinking water aqueducts..... | do..... | 125 |
| New irrigation..... | acres..... | 30,000 |
| Drainage..... | do..... | 360,000 |
| Flood control..... | do..... | 12,000 |

ANTI-MALARIA. For the past year the anti-malaria program involved an expenditure of 229,104,000 lire, which was distributed to 11 regions. DDT spraying services were carried out in the areas considered to be particularly malarious. Italian health officials report that the results surpass their expectations. A program for the second year is now being developed.

WAR DAMAGES. ECA has allocated 2.8 billion lire for repairing war damages in various reclamation areas. In general, the work involves such facilities as highway surfaces, bridges, or canals within established reclamation districts. In each case, examination revealed that agricultural production was being hampered by works that could usually be repaired with a very small amount of money. Construction is under way on all war-damaged projects and completed on more than 50 percent.

MOUNTAIN BASINS. Only 630 million lire have been allocated for the mountain basins program to date. In general, investigations were retarded be-

TABLE 2.—*Research program implemented by 1948-49 ERP counterpart funds*

[Thousands of lire]

| Project | Amount appropriated | Sums committed | |
|--|---------------------|----------------|---------|
| | | 1949-50 | 1950-51 |
| General research: | | | |
| Hybrid corn..... | 70,000 | 70,000 | |
| Wheat..... | 44,875 | 44,875 | |
| Small grains..... | 6,000 | 6,000 | |
| Rice..... | 16,200 | 16,200 | |
| Sugar beets..... | 8,200 | 8,200 | |
| Feed and livestock..... | 73,815 | 73,815 | |
| Vine and olive culture, fruits and vegetables..... | 65,390 | 60,890 | 4,500 |
| Hemp, flax, silk..... | 17,000 | 17,000 | |
| Farm machinery..... | 12,900 | 12,900 | |
| Potatoes..... | 26,630 | 26,630 | |
| Poultry breeding..... | 6,000 | 6,000 | |
| Fisheries..... | 50,000 | | 50,000 |
| Entomology and plant pathology..... | 11,850 | 11,850 | |
| Soils..... | 38,850 | 32,300 | 6,550 |
| Forestry..... | 4,000 | 4,000 | |
| Rural buildings..... | 30,000 | | 30,000 |
| Artificial rainfall..... | 7,000 | 7,000 | |
| Agricultural economics..... | 15,000 | | 15,000 |
| Medicinal plants and perfume essence..... | 4,400 | | 4,400 |
| Total..... | 508,110 | 397,660 | 110,450 |
| Subsidies for imported American hybrid corn..... | 230,000 | 230,000 | |
| Scholarships..... | 36,400 | 36,000 | |
| Total..... | 774,110 | 663,660 | 110,450 |
| Fund held by Ministry..... | 5,890 | | |
| Grand total..... | 780,000 | 663,660 | 110,450 |

Source: Figures supplied by Italian Ministry of Agriculture.

cause the original program appeared to ECA to offer benefits that could not be realized for many years. A revised program was developed, and about 25 percent of the work is now in progress on that portion where projects have been authorized.

Assistance to Farmers for Land Improvement

The land improvement program, designed to assist and encourage individual farmers to improve their land and farm buildings, provides certain grants-in-aid to cover part of the improvement costs.

Of the 12.5 billion lire authorized for this program, 11.5 billion were allocated to be paid as subsidies for carrying out such farm improvements as land leveling, development of irrigation on the farm, construction and repair of interfarm roads, building and repair of farmhouses and other farm buildings, electrification, pasture improvement, planting of orchards and vineyards, and providing drinking water.

The remaining 1 billion lire have been authorized to cover costs of constructing and modernizing plants and equipment in southern Italy for preserving, processing, storing, and marketing agricultural produce by cooperatives and others and for breeding and sheltering livestock. In this connection, the Mission has urged that priority be given to modernizing and constructing those plants that will process and store farm produce likely to increase in supply as the south develops.

As of March 31, 1950, a total of 5,017,587,874 lire had been committed to pay the state subsidy on 21,877 separate works.

State Contribution to Labor Costs for Land Improvement

This project has been developed to supplement and expand the Italian program that was initiated in 1946 to provide employment on farms in critical areas and, at the same time, to increase agricultural production through the improvements achieved. The program makes available state contributions (ranging from 35 percent of the costs of the improvements on large farms to 67 percent on small farms) for payment of the labor hired through Provincial unemployment offices. The work must be performed on specific types of improvements that will increase production and stimulate private investment under the condition that unemployed labor is hired. This program provides for land improvement works similar to those provided under the ECA Land Improvement Project except that here the state contribution covers only part of the hired labor costs and none of the material costs.

The enabling legislation appropriated 4.5 billion lire for the program, of which 2.75 billion were allocated to southern Italy, including the islands. The types of improvements eligible for subsidies from these funds must contribute substantially to the attainment of ERP agricultural productivity objectives and fall into three main categories:

1. Improvements in farm water regulation (irrigation and drainage ditches, land leveling for irrigation purposes, etc.).
2. Improvements to regulate water on hilly land (terracing and support masonry).
3. Establishment of tree cultures (vines, olive and fruit trees, windbreaks).

From the time the ECA phase of this program was initiated in September 1949, to May 31, 1950, 3,471 million lire had been committed on projects completed or nearly completed.

About two-thirds of the contributions went to small farms and more than half of the money was spent for improvements in southern Italy and the islands.

Agrarian Credit

A sound farm credit program that provides adequate capital at a reasonable rate of interest and that contains simple loan repayment provisions is sorely needed in Italy. Such a program, tailored to meet the economic peculiarities of farming, would reduce the need for outright state subsidies to farmers by making it possible for them to finance their own investments.

Sufficient commercial credit exists in Italy, at a price, but this price is an interest rate of 8-10 percent for ordinary agricultural loans. In addition, Italian farmers have access to Government-sponsored sources of agricultural credit through two distinct types of lending institutions. Although the terms of the loans made by these agencies are more in line with farmer

requirements as to interest rate (average 6.5 percent plus certain other costs adding roughly 1.0 percent) and repayment period, their funds have been insufficient and their organizational structure unsuited to prompt processing of loan applications.

The status of Italian farm credit is further indicated by the fact that the only way a farmer can get credit at 5 percent is through a state subsidy on the going rate of interest, running up to 2.5 percent of the loan; this may be chosen in lieu of direct contributions for certain types of farm improvement work, i. e., a farmer qualifying for Government assistance under the (ECA) Land Improvement program may elect between (a) a grant up to 38 percent (45 percent for war damage) of the cost of the improvement works and (b) a rebate on the interest rate of a loan.

Originally, the 1.5 billion lire allocated for farm credit was to be used to pay these interest-rate subsidies. However, the Mission, not wishing to perpetuate the present farm credit system, has preferred to withhold concurrence on the use of the funds, hoping that they might be used to initiate a more satisfactory farm credit program.

While holding this ECA fund in abeyance, the Mission has agreed to allocate an equivalent amount from the Interim-Aid Counterpart Fund, which is free from requirements laid down under Law 165. Under present plans, the money will be made available to borrowers at a maximum of 4.5 percent interest, of which the credit institutions will receive 1.2 percent for handling charges and risks. The remaining 3.3 percent and the repayment of principal will enter into a revolving fund for subsequent loans.

In addition to the source of cheap agricultural credit forthcoming from the above program, small and medium-sized firms that process and market farm produce will have access to 2 billion lire set aside for agriculture by the ECA Mission from the 10-billion-lire fund for small business loans. The loans are to be amortized in 10 years with a maximum rate of interest to the borrower of 5.5 percent.

Research and Experimentation

The purpose of this project is to expand the type of agricultural research essential to achieving higher output and lower production costs for the crops, livestock, and livestock products of primary importance to the Italian economy.

The program logically falls into three categories: (1) General research activities, (2) farm level field tests to determine the adaptability of American hybrid corn varieties to Italian conditions, and (3) research scholarships.

As noted in table 2, most of the research programs got under way last year. The allocation for agricultural research scholarships was 36 million lire. Several of these scholarships have been awarded and the remainder will be granted over a period of time ending December 31, 1951.

Most of the first 2,000 metric tons of commercial hybrid seed corn imported from the United States

under the seed subsidy program was planted in 1949 throughout the corn-growing areas of Italy.

On the whole, the program was satisfactory, although the performance of several varieties demonstrated that hybrid corn production in Italy is still in an experimental stage and that future programs must be developed with care. This year only about half of an additional purchase of 2,200 tons of seed has been sold to farmers. The reasons for this setback are many but the most important causes appear to be the lack of adequate publicity, late arrival of the seed, and an unsatisfactory distribution program.

Inspection Service

The Inspection Service project aims to strengthen the Government's agricultural Inspection Service through which most of the general programs of the Ministry of Agriculture are channeled to the farmers of Italy and whose Provincial office staffs are charged with farmer educational, or extension, work, and the collection and forwarding of statistics.

To achieve this aim, 800 million lire have been authorized for the project, to provide additional transportation, equipment, supplies, and some new personnel. Slightly more than half of the money was committed during the fiscal year 1949-50.

Training and Education of Farmers

The 700 million lire authorized for the farmer training and education project were appropriated to make it possible for the staff members of the Inspection Service to establish educational demonstrations on farms, schedule farmer meetings to discuss new methods of carrying out farming operations, print leaflets and circulars describing modern practices, and secure visual aids and other equipment required to do an effective job of transmitting new ideas that must be put into action on the farms of Italy to make them more productive.

This program also includes plans to improve the teaching ability of Inspection Service workers, and calls for the establishment of a central office to coordinate extension activities and provide guidance for local personnel.

More than half of the money allotted the Inspection Service has already been spent, and the Mission believes that the organization is in a position to carry out the provisions of the program.

Pest and Parasite Control

This project consists of 12 programs designed to help intensify the efforts of the Ministry of Agriculture to control and eradicate those plant diseases and pests causing the greatest damage to Italian agriculture.²

² Colorado potato beetle, Argentine ant, San Jose scale, citrus fruit cochineal, citrus "malsecco," pine bug, olive thrip, field mice, chestnut blight, dacus fly, fruit tree virus.

The enabling legislation appropriated 1.3 billion lire, mostly for action programs. The funds for these programs are being used mainly to purchase insecticides, with smaller portions set aside to procure special types of equipment, some of which is rented to farmers for a nominal fee. Farmers receive up to four-fifths of their insecticide requirements providing they follow the specific instructions of the Provincial Inspectors in applying the materials received. Where satisfactory measures of control are unknown, as in the case of the dacus fly, fruit tree virus, and chestnut blight, funds have been programmed to continue research. Two helicopters were also purchased for experiments in applying insecticides.

Livestock Improvement

This program is designed to step up the improvement of dairy cattle, draft animals, sheep, and poultry throughout Italy by providing funds to pay a portion of the cost of top-quality breeding stock.

On June 30, 1950, 366 million of the 400-million-lire fund appropriated for livestock improvement had been committed to specific programs, the bulk of it for dairy cattle improvement.

Purchase of Draft Animals and Farm Machinery

This project is designed to assist tenants and owner-operators of small farms in southern and insular Italy to purchase draft animals and farm machinery by granting subsidies not exceeding 40 percent of actual costs to the farmers. Many of these farms have not been producing at full capacity because the operators have not had capital to purchase sufficient work stock and machinery. Also, new small holdings are currently being formed in Italy. The proprietors taking over these new farms are peasants who have heretofore earned a living as hired farm laborers and consequently have little capital to buy needed equipment.

Operators of family-sized farms and cooperatives formed by such farmers will get top priority. Operators of small or, in exceptional cases, medium-sized units under a share-cropping or share-tenancy contract are eligible for approximately 25 percent of available funds, providing the needs of farmers in the first classification are met.

Roughly 50 percent of the funds are to be granted to purchasers of work stock including oxen, dual- or triple-purpose cattle, horses, and mules. The remaining 50 percent is to be used to subsidize farm machinery.

The 900-million-lire fund to be used to implement this project has been allotted to the Provinces and tentative information indicates that applications will exceed the funds.

Small Landed Property

Two billion lire were allocated from the 1948-49 counterpart fund to help form small holdings. Government encouragement for the "spontaneous" forma-

tion of small landed property (as contrasted with compulsory land redistribution) during the postwar period began 2 years ago with special tax exemptions for new small holders and a Government subsidy on the interest rate paid for mortgage loans. Later an initial sum of 500 million lire was set aside for the total financing of purchases of land under this program.

Though the Mission had agreed in principle to the use of the ECA funds for the small Landed Property project, it insisted on project-by-project approval. So far, only four projects have been approved. From its investigations the Mission has the impression that to make a go of their farms, peasants need help beyond the mere purchase and allotment of land, which is not of good quality.

Other Projects

Two other production projects were included in the legislation authorizing the expenditure of 70 billion lire for agriculture from 1948-49 Counterpart Funds. These projects—Transformation and Improvement of Public Lands and Vine and Tree Culture—are not yet in operation.

For the Transformation and Improvement of Public Lands, the legislation (Law 165) authorized the expenditure of 1.7 billion lire to improve and restore the fertility of a large area of communal and former military properties (in the south) now being farmed by individuals and farmer cooperatives. Nothing has been done on this program as yet.

For the second project, designed to implement a program of vine and tree culture improvement, 300 million lire has been authorized, but as yet no plans have been worked out for the project.

Technical Assistance Program

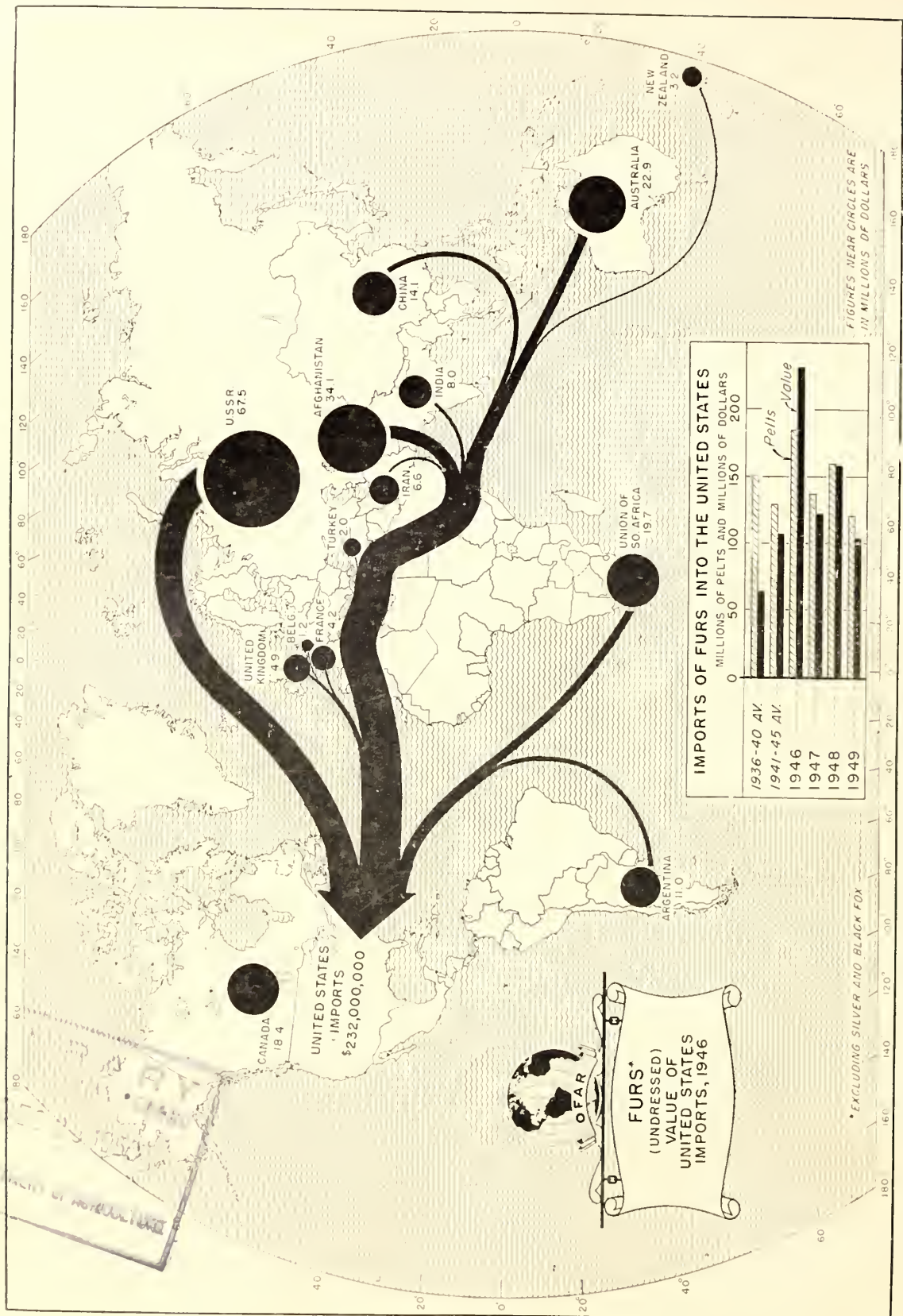
The activities under the Technical Assistance Program that are of particular interest to the Agriculture Division of the ECA Mission fall into two categories—American technical experts serving in Italy and Italian teams of technical scientists and public administrators studying specific programs in the United States.

Activities of the two United States technicians include the initiation of research in chestnut blight control and the replacement of blighted chestnuts; advice on a program for mountain watershed systemization and up-to-date forestry methods and forestry industrialization; assistance on seed improvement of Italy's important cereal crops, on the development of high-quality forage crops, on a program to improve the quality of the more important classes of livestock, and on the proper use of chemicals for treating grain stored in bins to reduce insect and rodent damage.

Under the project, eight Italian technicians are now in the United States studying such agricultural programs and farming methods as seed selection, hay harvesting and storage, selection and use of fungicides and pesticides, forestry nursery program, fruit and vegetable marketing, soil conservation methods, and extension service organization and operation.



Workmen lining the Lignara Torrent with concrete, one of the many reclamation projects going forward in Italy with ERP assistance.



The principal furs imported from the Soviet Union are Persian lamb, squirrel, marmot, fox, kolinsky, muskrat, and sable; from Canada, mink, beaver, and muskrat; from Afghanistan, Persian lamb; from Union of South Africa, Persian lamb; from India, Persian lamb and sheep, lamb, and shearlings; from Australia, coney and rabbit; from New Zealand, coney and rabbit; from France and the United Kingdom, coney and rabbit; and from Sweden, squirrel and fox.

In addition to the above, nearly 60 million silver and black fox pelts with a value of \$2.5 million were imported in 1946, chiefly from Canada.

Persian lamb made up about 37 percent of the total imports by value in 1946 and coney and rabbit were second in importance with 14 percent, while mink accounted for only about 4 percent.